NATIONAL INFORMATION ASSURANCE RESEARCH LABORATORY

NSA SVP Hard Problem Overview

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5 April 2010

Hard Problems

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- Assurance in critical components while supporting complex operations
  - Display management
  - Device driver diversity
  - Unmodified commercial OS & apps
- Attestation in coalition operations
  - Flexibility
  - Privacy
- Measurement
  - Freshness
  - Veracity
  - Completeness
- User Interaction

Overview

- Virtualization
- Assurance Strategy
- Measurement
- Attestation
- Trusted Path

Virtualization

- Light-weight VMs / Virtual Hardware
- Mandatory Access Controls
- VM Groups
- vTPM

Assurance Strategy

- Dynamic resource sharing
- Display manager
- Device drivers
- BIOS

Measurement

- Measurement of running system
- Semantic analysis
- Measurement of SELinux policy underway

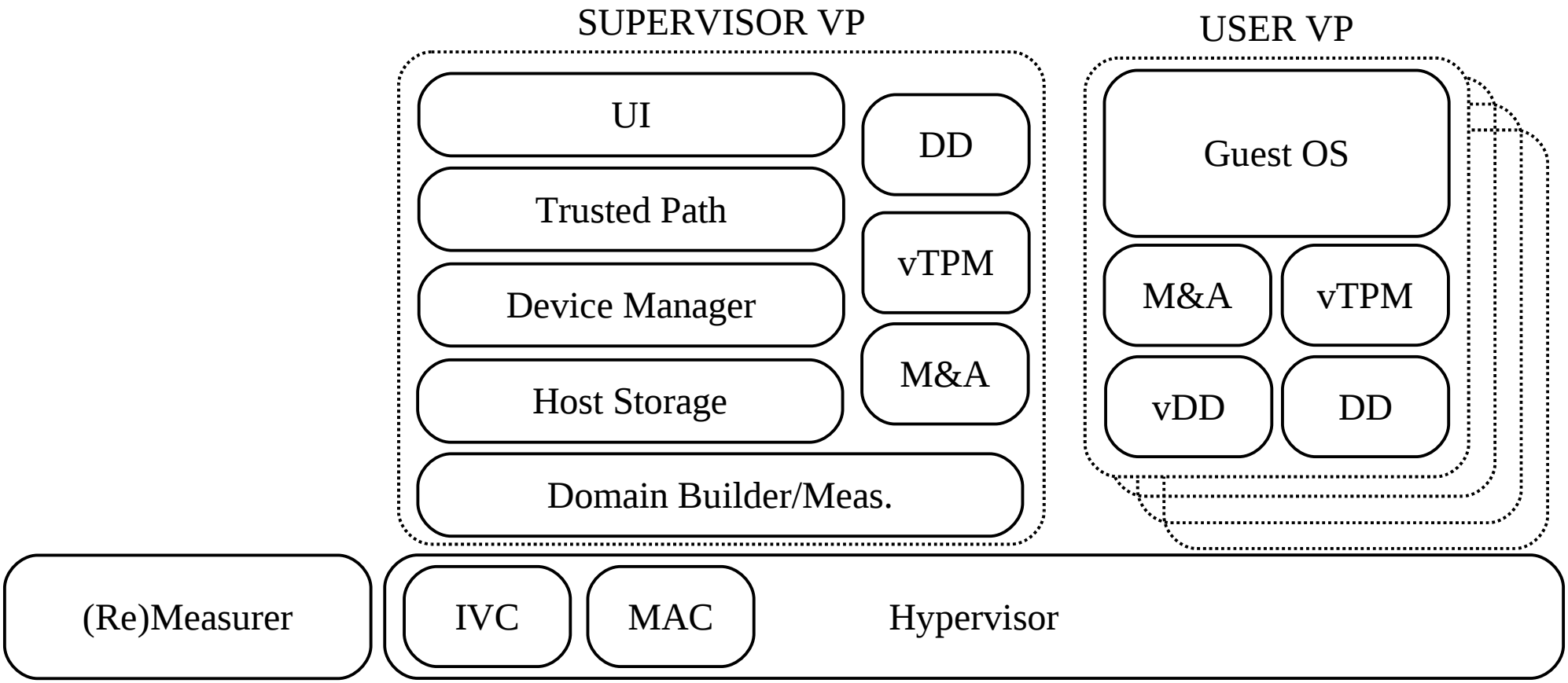
Attestation

- Dynamic and flexible
- Privacy preserving

Trusted Path

- Protection from evil devices
- Protection for VMs

SVP Components



Questions

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